

09/148234  
A+1#2

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FILE 'USPAT' ENTERED AT 08:52:25 ON 29 APR 1999

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\* WELCOME TO THE \*  
\* U.S. PATENT TEXT FILE \*  
\*\*\*\*\*

=> s bmp(p)(bone or protein)

677 BMP  
34554 BONE  
70917 PROTEIN  
L1 361 BMP(P)(BONE OR PROTEIN)

=> s bone(w)(morphogenetic or morphogenic)(w)protein

34554 BONE  
481 MORPHOGENETIC  
413 MORPHOGENIC  
70917 PROTEIN  
L2 407 BONE(W)(MORPHOGENETIC OR  
MORPHOGENIC)(W)PROTEIN

=> s plasmid or plasmids or vector or vectors or recombinant or recombinants

15090 PLASMID  
11330 PLASMIDS  
68287 VECTOR  
37880 VECTORS  
20292 RECOMBINANT  
2730 RECOMBINANTS  
L3 82728 PLASMID OR PLASMIDS OR VECTOR OR VECTORS OR  
RECOMBINANT OR  
REC  
OMBINANTS

=> s l1 or l2

L4 503 L1 OR L2

=> s l4(10a)l3

\*WARNING\* - PROXIMITY OPERATOR PRECEDENCE LEVEL  
CONFLICTS OR IS NOT CONSIS  
TENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'L4(10A)L3'  
L5 289 L4(10A)L3

=> s therapy or therapies or therapeutic or treat or treats or treated or treatment  
or treatments or implant or implants or implantation or implanted

43205 THERAPY  
5859 THERAPIES  
61471 THERAPEUTIC  
73573 TREAT  
7941 TREATS  
383604 TREATED  
400754 TREATMENT  
70723 TREATMENTS  
21425 IMPLANT  
13006 IMPLANTS  
35766 IMPLANTATION  
37521 IMPLANTED  
L6 600838 THERAPY OR THERAPIES OR THERAPEUTIC OR TREAT  
OR TREATS OR T  
REA  
TED OR TREATMENT OR TREATMENTS OR IMPLANT OR  
IMPLANTS OR IM  
PLA  
NTATION OR IMPLANTED

=> s l5(10a)l6

\*WARNING\* - PROXIMITY OPERATOR PRECEDENCE LEVEL  
CONFLICTS OR IS NOT CONSIS  
TENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'L5(10A)L6'  
L7 285 L5(10A)L6

=> d his

(FILE 'USPAT' ENTERED AT 08:52:25 ON 29 APR 1999)  
L1 361 S BMP(P)(BONE OR PROTEIN)  
L2 407 S BONE(W)(MORPHOGENETIC OR  
MORPHOGENIC)(W)PROTEIN  
L3 82728 S PLASMID OR PLASMIDS OR VECTOR OR VECTORS  
OR RECOMBINANT  
OR  
L4 503 S L1 OR L2  
L5 289 S L4(10A)L3  
L6 600838 S THERAPY OR THERAPIES OR THERAPEUTIC OR  
TREAT OR TREATS O  
R T  
L7 285 S L5(10A)L6

=> s l4(p)l6

L8 222 L4(P)L6

=> s l4(10a)l3

\*WARNING\* - PROXIMITY OPERATOR PRECEDENCE LEVEL  
CONFLICTS OR IS NOT CONSIS  
TENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'L4(10A)L3'  
L9 289 L4(10A)L3

=> s l9(p)l8

\*WARNING\* - PROXIMITY OPERATOR PRECEDENCE LEVEL  
CONFLICTS OR IS NOT CONSIS  
TENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'L9(P)L8'  
L10 119 L9(P)L8

=> d l10,cit,rel,ab,1-119

I. 5,891,147, Apr. 6, 1999, Minimally invasive spinal surgical methods &  
instruments; Peter A. Moskovitz, et al., 606/79 [IMAGE AVAILABLE]

US PAT NO: 5,891,147 [IMAGE AVAILABLE] L10: 1 of 119  
REL-US-DATA: Division of Ser. No. 670,351, Jun. 25, 1996, Pat. No.  
5,741,261.

#### ABSTRACT:

Minimally invasive spinal surgical techniques and tools are provided. The methods include separating the iliocostalis lumborum muscle from the anterior leaf of the thoracolumbar fascia to create a channel from the patient's skin to the intertransverse interval. In one embodiment, the method also includes delivering graft material through the channel to the intertransverse interval. A device according to one aspect of the present invention includes a retraction portion having a flattened plate configured to atraumatically retract tissue to create a working space within an endosurgical site and a curved shaft attached to the retraction portion. The shaft includes a bend having a radius of preferably 160 degrees. A gripping portion is attached to the shaft and is configured for manually gripping and manipulating the device.

2. 5,885,829, Mar. 23, 1999, Engineering oral tissues; David J. Mooney, et al., 435/325; 424/49, 422, 435; 435/69.1, 374, 378 [IMAGE AVAILABLE]

US PAT NO: 5,885,829 [IMAGE AVAILABLE] L10: 2 of 119

#### ABSTRACT:

Disclosed are methods for regenerating dental and oral tissues from viable cells using ex vivo culture on a structural matrix. The regenerated oral tissues and tissue-matrix preparations thus provided have both clinical applications in dentistry and oral medicine and are also useful in in vitro toxicity and biocompatibility testing.

3. 5,885,292, Mar. 23, 1999, Minimally invasive spinal surgical methods and instruments; Peter A. Moskovitz, et al., 606/79, 61, 86 [IMAGE AVAILABLE]

US PAT NO: 5,885,292 [IMAGE AVAILABLE] L10: 3 of 119  
REL-US-DATA: Division of Ser. No. 670,351, Jun. 25, 1996, Pat. No.

09/148234  
AD #7

Set Items Description  
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? s bmp(10n)(bone or protein)  
  
4164 BMP  
842062 BONE  
3253189 PROTEIN  
S1 2529 BMP(10N)(BONE OR PROTEIN)  
? s bone(w)(morphogenetic or morphogenic)(w)protein  
  
842062 BONE  
17821 MORPHOGENETIC  
2564 MORPHOGENIC  
3253189 PROTEIN  
S2 5309 BONE(W)(MORPHOGENETIC OR  
MORPHOGENIC)(W)PROTEIN  
? s s1 or s2  
  
2529 S1  
5309 S2  
S3 5644 S1 OR S2  
? s plasmid? or vector? or recombinant  
  
266601 PLASMID?  
263879 VECTOR?  
406978 RECOMBINANT  
S4 772913 PLASMID? OR VECTOR? OR RECOMBINANT  
-----User Break-----  
!  
  
? s plasmid or plasmids or vector or vectors or recombinant recombinants  
  
218723 PLASMID  
113072 PLASMIDS  
200309 VECTOR  
98158 VECTORS  
0 RECOMBINANT RECOMBINANTS  
S5 452035 PLASMID OR PLASMIDS OR VECTOR OR VECTORS  
OR RECOMBINANT  
RECOMBINANTS  
? s plasmid or plasmids or vector or vectors or recombinant or recombinants  
  
218723 PLASMID  
113072 PLASMIDS  
200309 VECTOR  
98158 VECTORS  
406978 RECOMBINANT  
15276 RECOMBINANTS  
S6 770193 PLASMID OR PLASMIDS OR VECTOR OR VECTORS  
OR RECOMBINANT  
OR RECOMBINANTS  
? s s3(10n)s4  
  
5644 S3  
772913 S4  
S7 771 S3(10N)S4  
? s therapy or therapies or therapeutic or treat or treats or treated or treatment or  
treatments or implant or implanted or implants or implanting  
  
Processing  
Processing  
3778152 THERAPY  
47161 THERAPIES  
1386639 THERAPEUTIC  
83250 TREAT  
2657 TREATS  
1405730 TREATED  
3590433 TREATMENT  
246451 TREATMENTS  
72702 IMPLANT  
118116 IMPLANTED  
85116 IMPLANTS  
5355 IMPLANTING  
S8 7285544 THERAPY OR THERAPIES OR THERAPEUTIC OR  
TREAT OR TREATS OR  
TREATED OR TREATMENT OR TREATMENTS OR  
IMPLANT OR  
IMPLANTED OR IMPLANTS OR IMPLANTING

? s s7(25n)s8  
  
771 S7  
7285544 S8  
S9 202 S7(25N)S8  
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...examined 50 records (100)  
...examined 50 records (150)  
...examined 50 records (200)  
...completed examining records  
S10 124 RD (unique items)  
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Processing  
Processing  
124 S10  
42216848 PY<=1997  
S11 93 S10 AND PY<=1997  
? t s11/3,ab/1-93

11/3,AB/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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11895001 BIOSIS NO.: 199900141110  
Effective doses of recombinant human bone morphogenetic protein-2 in  
experimental spinal fusion.

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JOURNAL: Spine 21 (18):p2115-2122 Sept. 15, 1996  
ISSN: 0362-2436  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: Study Design. Nineteen dogs underwent L4-L5 intertransverse  
process fusions with either 58 mug, 115 mug, 230 mug, 460 mug, or 920 mug  
of recombinant human bone morphogenetic protein-2 carried by a polylactic  
acid polymer. A previous study (12 dogs) compared 2300 mug of recombinant  
human bone morphogenetic protein-2, autogenous iliac bone, and carrier  
alone in this model. All fusions subsequently were compared. Objectives.  
To characterize the dose-response relationship of recombinant human bone  
morphogenetic protein-2 in a spinal fusion model. Summary of Background  
Data. Recombinant osteoinductive morphogens, such as recombinant human  
bone morphogenetic protein-2, are effective in vertebrate diaphyseal  
defect and spinal fusion models. It is hypothesized that the quality of  
spinal fusion produced with %%%recombinant%%% human  
%%bone%%  
%%morphogenetic%% protein%%-2, above a threshold dose,  
does not

change with increasing amounts of inductive protein. Methods. After  
decompression of the posterior elements, the designated %%implants%%  
were placed along the intertransverse process space bilaterally. The  
fusion sites were evaluated after 3 months by computed tomography  
imaging, high-resolution radiography, manual testing, mechanical testing,  
and histologic analysis. Results. As in the study using 2300 mug of  
recombinant human bone morphogenetic protein-2, implantation of 58-920  
mug of recombinant human bone morphogenetic protein-2 successfully  
resulted in intertransverse process fusion in the dog by 3 months. This  
had not occurred in animals containing autograft or carrier alone. The  
cross-sectional area of the fusion mass and mechanical stiffness of the  
L4-L5 intersegment were not dose-dependent. Histologic findings varied  
but were not related to rhBMP-2 dose. Inflammatory reaction to the  
composite implant was proportional inversely to the volume of the fusion  
mass. Conclusions. No mechanical, radiographic, or histologic differences  
in the quality of intertransverse process fusion resulted from a 40-fold  
variation in dose of recombinant human bone morphogenetic protein-2.

11/3,AB/2 (Item 2 from file: 5)